WHAT IS CLAIMED IS:

1. A method of handling a fuel assembly, comprising:

supporting a tool configured to handle the fuel assembly;

positioning the tool over a top of the fuel assembly;

lowering the tool onto the top of the fuel assembly such that alignment pins engage a top nozzle of the fuel assembly;

actuating a shaft to lower lock fingers into guide thimbles of the fuel assembly;

positioning the lock fingers to a position below divots in the guide thimble in the fuel assembly to be engaged;

engaging the lock fingers into the divots to an extended position; and

lifting the fuel assembly and the tool.

2. The method according to claim 1, further comprising:

disengaging the tool from the fuel assembly.

3. The method according to claim 1, wherein the shaft is rotated to lower the lock fingers into the guide thimbles.

4. The method according to claim 1, wherein the actuating of the shaft to lower the lock fingers is performed by a mandrel shaft which allows a spring tension to be applied to the lock fingers.

5. A fuel assembly nozzleless handling tool configured to handle a fuel assembly, comprising:

at least four support rods;

a mandrel shaft configured to travel a length of the tool;

a mandrel plate connected to the mandrel shaft, the mandrel plate configured to move through actuation of the mandrel shaft;

a finger shaft configured to travel from an unengaged position to an engaged position;

at least two lock fingers configured to interface with a fuel assembly guide thimble;

a finger plate configured to insert and retract the lock fingers into guide thimbles, the finger plate moved by actuation of the finger shaft;

a load plate connecting to the support rods the load plate configured to receive an end of the finger shaft; and

a mandrel for each of the at least two lock fingers, wherein the mandrel is configured to secure the at least two lock fingers and retract the at least two lock fingers.

6. The device according to claim 5, wherein the lock finger is configured to engage divots in the guide thimble.

7. The device according to claim 5, wherein the mandrel is configured with springs to allow independent locking of individual lock fingers.

8. The device according to claim 5, further comprising:

at least four support rods connected to the load plate, each of the at least four support rods positioned at a corner of the load plate.

9. The device according to claim 5, wherein the load plate is configured with arrangements to accept alignment pins of the fuel assembly.

10. The device according to claim 5, wherein the lock fingers are configured to be inserted into the fuel assembly where a guide thimble is swaged to an upper sleeve.

11. The device according to claim 5, wherein the lock fingers are made of stainless steel.

12. The device according to claim 5, wherein the lock fingers are made of Inconel.

13. The device according to claim 5, further comprising:

alignment pins configured to engage a top nozzle of the fuel assembly, the alignment pins at a bottom of the tool.

14. The device according to claim 5, wherein the lock fingers are configured with tabs to engage divots of the fuel assembly.

15. The device according to claim 5, wherein the tool has 20 lock fingers and 20 mandrels.